

SB320S - SB3B0S

PRV : 20 - 100 Volts
I_o : 3.0 Amperes

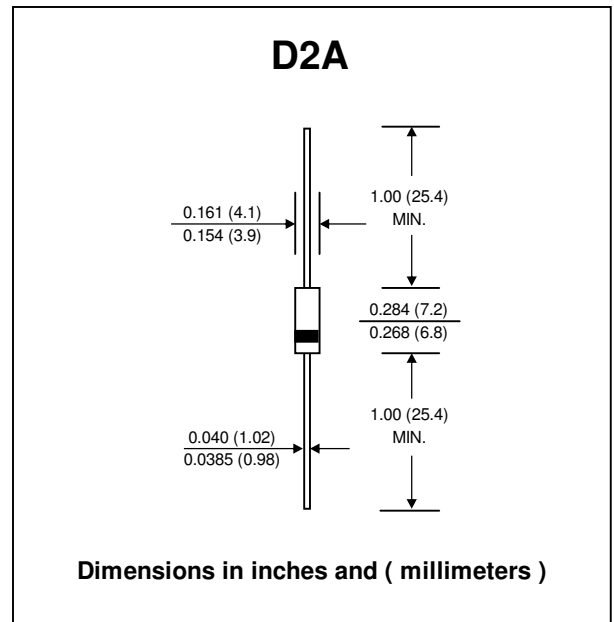
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : D2A Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.645 gram

SCHOTTKY BARRIER RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	SB 320S	SB 330S	SB 340S	SB 350S	SB 360S	SB 370S	SB 380S	SB 390S	SB 3B0S	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I _{F(AV)}	3.0									A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	80									A
Typical thermal resistance (Note 2)	R _{θJA}	40									°C/W
	R _{θJL}	12									
Maximum Forward Voltage at I _F = 3.0 A	V _F	0.5			0.74			0.79			V
Maximum Reverse Current at Ta = 25 °C	I _R	0.5									mA
Rated DC Blocking Voltage (Note 1) Ta = 100 °C	I _{R(H)}	20									mA
Junction Temperature Range	T _J	- 65 to + 125			- 65 to + 150						°C
Storage Temperature Range	T _{STG}	- 65 to + 150									°C

Note : (1) Pulse Test : Pulse Width = 300 ms, Duty Cycle = 2%

(2) Thermal resistance from junction to lead vertical P.C.B. mounting, 0.500"(12.7 mm) lead length with 2.5 x 2.5"(63.5x63.5mm) copper pad

RATING AND CHARACTERISTIC CURVES (SB320S - SB3B0S)

FIG.1 - FORWARD CURRENT DERATING CURVE

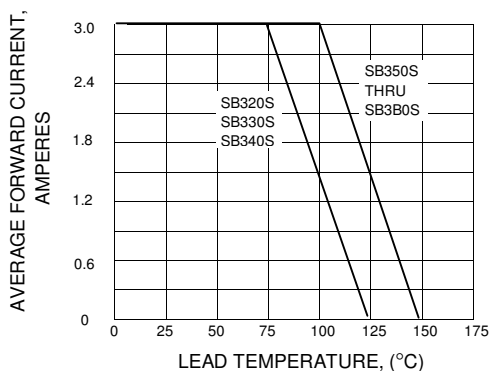


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

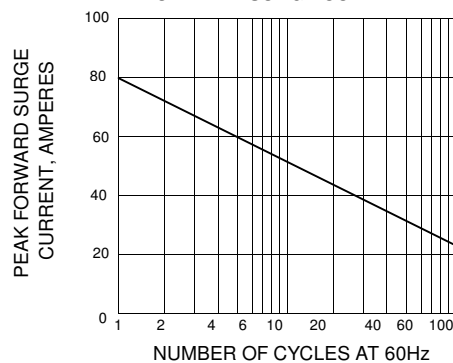


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

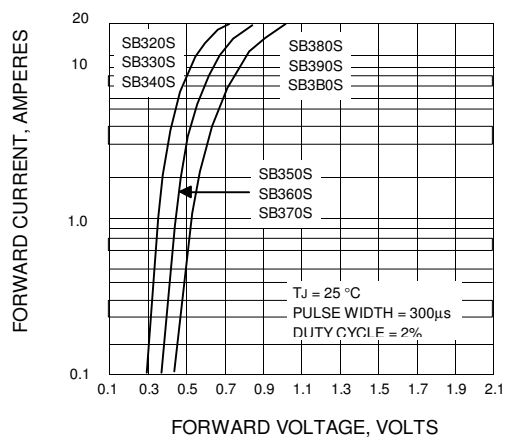


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

